
NATURE LIBRARY

BIRDS OF OAK HAMMOCK MARSH WILDLIFE MANAGEMENT AREA

KENNETH A. GARDNER. 1981. 172 pp. Paper \$10.50.

Kenneth Gardner's *Birds of Oak Hammock Marsh Wildlife Management Area* is more than an annotated list of birds, it is a success story. In an age when the loss of wildlife habitat on the Prairies is occurring at a disconcerting rate, the reversal of this trend in even the smallest of areas could be termed a victory. The story of Oak Hammock Marsh is no less than a resounding triumph, for 3,500 acres of wetlands have been restored.

Oak Hammock Marsh lies 25 kilometres north of the city of Winnipeg, Manitoba. Once a part of the larger St. Andrew's Bog, it was gradually drained until only remnants remained. In 1967 a restoration project began under the cooperation of Federal and Provincial government agencies and Ducks Unlimited Canada. Actual construction began in 1972 and by 1974 the project was essentially complete. The site consists of 20 kilometres of dykes and 58 nesting islands. Water levels are controlled by a system of cross dykes, flood gates and drainage ditches. In the event of a drought, water levels can be augmented by eight artesian wells.

The restoration has had a profound impact on the avifauna of the area; and Gardner has done an excellent job in documenting these changes. For each species affected by the restoration he

gives in the species accounts pre and post-restoration status summaries. In the section entitled "The Birds" he presents a before and after comparison of the numbers of each species of breeding bird recorded on early morning walks around the marsh in 1972 and 1974. Unfortunately these results are not statistically comparable as they are not corrected for observer effort. Nevertheless the changes in the species composition are quite evident: 15 species recorded in 1972 were not recorded in 1974, while 35 species recorded in 1974 were not recorded in 1972, a net gain of 20 species.

Another excellent feature of the species accounts is that for many of 265 species recorded in the study area, comparisons are made to the adjacent region. This adjacent region includes Gardner's hometown of Stonewall and includes 34 species not recorded in the study area. For the rarer species comparisons are made with the status of that species in southern Manitoba as a whole. The species accounts also include migration dates, maximum seasonal counts and summaries of nesting records.

This book is handsomely illustrated with 32 colour and six black and white photographs. Three maps pinpoint the study area, and show the geographic features of the study area and adjacent region. Remarkably free of errors of any kind. Gardner's book is a must for any serious student of prairie ornithology. — Reviewed by A. R. Smith, 308-537 4th Avenue North, Saskatoon, Saskatchewan. S7K 2M6.

THE FRESHWATER MOLLUSCS OF CANADA

ARTHUR H. CLARKE. 1981. National Museum of Natural Sciences, National Museums of Canada, Ottawa. 448 pp. Illus. Maps. Cloth \$39.95.

How many of you have walked along a lake shore or a dried prairie slough with the crunch of snail shells under foot? Bending down to pick up a snail shell you muse over the fact that it has a delicate twist to the shell, then put the shell back down again none the wiser.

I think this textbook by Mr. Clarke could answer a lot of your questions. It is an informative text with introduction, a discussion of how to collect shells, classification, distribution and identification of snails (Gastropoda) or clams and mussels (Pelecypoda).

The introductory pages discuss why people collect shells, how one would collect shells, the tools and equipment necessary, arrangement of the collection in taxonomic order, and distribution of the molluscs in Canada with a brief discussion of the zoographic regions of Canada and the regions' geological history.

The identification key in the text is at the family level. Common English terminology is used to identify features which separate the families. Labeled schematic diagrams of features required to identify snails and clams are found on the inside covers.

The species covered in the text are in taxonomic order with the Latin and common names, description, distribution, ecology, a plate of the shell in 2/3 life size and a map of Canada illustrating distribution. Separating the text of gastropoda and pelecypoda are nine pages of colour plates of clam shells beneficial in identification.

The textbook is useful to the naturalist and professional alike. It has technical value with a glossary, description of ter-

minology, bibliography and suggested reading for more information on particular classes of mussels as well as the diagrammatic sketches of the mussel shell and the snail shell. A map of Canada denotes the zoographic regions. It is not only useful for the researcher in the laboratory identifying the summer's collection but the naturalist who can now not only muse over the shell but actually say they had looked at a particular species. This textbook has a definite place on the book shelf beside guides to the birds, mammals and freshwater fish of Canada as the identification authority of the mussels, clams and snails of Canada. — Reviewed by *Ron Jensen*, 1027 King Cres., Saskatoon, Saskatchewan. S7K 0N9.

THE LAKE ATHABASCA SAND DUNES OF NORTHERN SASKATCHEWAN AND ALBERTA, CANADA. 1. THE LAND AND VEGETATION.

HUGH M. RAUP and GEORGE W. ARGUS. Publications in Botany, No. 12, National Museum of Natural Sciences, Ottawa, 1982. 96 pp. Free.

Hugh Raup of Harvard University pioneered studies of the now famous Lake Athabasca sand dunes, first collecting plants in the area in 1935 when his wife Lucy — a lichen specialist — accompanied him. Later field work of a related nature was carried out between 1962 and 1975 by George Argus, a one-time student of Raup's and for many years the plant taxonomist at the University of Saskatchewan. Collaboration of the two has produced this landmark ecological study whose chief aim is to piece together the post-glacial history and to interpret the bio-

geography of the active dune fields.

Time will tell how successful the authors have been, for they readily admit in the introduction that present information is incomplete. What they have certainly accomplished is a challenging interpretation of the terrain, one that is bound to fulfill their "hope that it will stimulate further and more sophisticated study".

About half the paper is devoted to the development of the different dune forms, the slacks and gravel pavements, and the remainder to the vegetation, flora, and the ecological adaptations by means of which the plants cope with the shifting substratum. Appended are the botanical names of all plants collected on the south shore of Lake Athabasca, a useful checklist for the student and visitor.

The appearance of the paper is opportune, adding further evidence of the uniqueness of the dunes area at a time when plans for a hydro-electric mega-project on the Slave River presage changes in the hydrologic regime of Lake Athabasca and its south shore. The authors do not make a pitch for preserving this exceptional area; they do not have to, for their descriptions of the dunes and endemic plants plus the excellent black and white pictures of the terrain are sufficiently convincing.

A second paper is promised; it will catalogue the flora, and will consider its geography as well as the nature and origin of the botanical endeavours in the Lake Athabasca region. This will be an important supplement and I hope that we do not have to wait long for it. Meanwhile those interested in the natural history and ecology of the north will find "The Land and Vegetation" both informative and stimulating. — Reviewed by *J. Stan Rowe*, Crop Science and Plant Ecology, University of Saskatchewan, Saskatoon, Saskatchewan. S7N 0W0.

SPRUCE WOODS PROVINCIAL PARK

MANITOBA DEPARTMENT OF
NATURAL RESOURCES, Parks
Branch, Winnipeg, Manitoba. February
1982. Paper \$2.50.

If any one place in settled Manitoba can be said to have a special "genius loci" — a spirit of place — it must surely be the Carberry Sandhills, for this undulating savanna island in a sea of farmland nourished the imagination and land love of Ernest Thompson Seton, Norman and Stuart Criddle, and Ralph Bird. Today NATO army units are shredding the western part, including most of the open dune Bald Head Hills, and only the eastern third enjoys some protected status as the Spruce Woods Provincial Park. To lure visitors to it throughout the year the provincial Parks Branch has produced this colourful brochure.

Those intending to explore the Spruce Woods will find it an excellent introduction. Briefly described are the glacial and post-glacial processes that shaped the area, the earliest Indian visitors (a Clovis spear point has been found), the history of the later Indians and of the fur traders, and the settlement period when steamboats plied the Assiniboine River. Then follow short sections by seasons on natural features — plants, animals, marshes, dunes — illustrated with good quality colour pictures and exceptional pen-and-ink sketches by J. Carson.

Only a few things may jar the reader's sensibilities. The least of these is the statement that "Epinette" means "Pine" in translation; in fact it means "Spruce", so the English not the French Canadians were the bad botanists (and bad translators) when they changed the name of the stream to Pine Creek and called the settlement Pine Fort. The worst is the

warning that those exploring the Bald Head Hills must risk unexploded shells. Perhaps the anonymous authors were subtly expressing their sense of our insane human world where, on side-by-side pages, a slender and fragile Great Blue Heron with a worried yellow eye faces the gun muzzle of a West German tank, both together in the beautiful Carberry Hills. — Reviewed by *J. Stan Rowe*, Crop Science and Plant Ecology, University of Saskatchewan, Saskatoon, Saskatchewan. S7N 0W0.

WHY BIG FIERCE ANIMALS ARE RARE: AN ECOLOGIST'S PERSPECTIVE

PAUL A. COLINVAUX. 1978. Princeton University Press, Princeton, New Jersey. Paper \$4.95.

Paul Colinvaux writes unusually well for a scientist — not provocatively, but cogently. His essays are models of scientific explanation. For anyone who has felt lost in the labyrinth of information usually presented in an ecology textbook, Colinvaux's book will offer a refreshing 'read.' He does not report information to the third decimal place; he summarizes, clarifies and interprets the major findings of ecology and their relevance for understanding the workings of our environment.

I especially enjoyed his explanations of why plants are so inefficient, what causes treeline in the Arctic, what territoriality means and does not mean — especially for birds, and what causes stability in natural ecosystems. On the other hand, I found his defence of fertilizing lakes less than convincing and a curious blind spot in an otherwise clear sighted book.

Colinvaux also knows how to weave into his essays an interesting anecdote,

whether he is describing Charles Elton following arctic foxes across the barrens of Spitzbergen or Nelson Transeau in his armchair meditations about Illinois cornfields. It is encouraging to see a scientist muse over how the major findings of his science are explained and presented, and Colinvaux certainly does this.

The book was first published in 1978, but it is now available in an inexpensive paperback edition. If you are looking for a refreshing rehash of some of the major principles of ecology, I am sure you will enjoy this book. — Reviewed by *J. David Henry*, Box 263, Waskesiu Lake, Saskatchewan. S0J 2Y0.

AN ATLAS OF THE BIRDS OF THE WESTERN PALEARCTIC

COLIN HARRISON. 1982. Princeton University Press, Princeton, New Jersey. 322 pp., illus. Cloth \$40.00 (Can.).

This is a book of 673 maps showing the distribution of 806 species of birds, primarily in the western Palearctic which as defined includes Europe, North Africa and the Middle East. (The Palearctic Region includes the part of the Old World which lay under Arctic conditions during the last glaciation, only a small area of which was actually ice-covered.)

The maps come in two sizes: 556 are 60 cm (under 2.5 in.) square and cover the area of primary concern, including eastern Greenland. The remainder are 130 x 60 cm (5 x 2.5 in.) and stretch eastward across Asia. For the western Palearctic, breeding, winter and migration ranges are shown, for elsewhere only breeding ranges. A text of less than 150 words accompanying each map gives status, nest sites and

thermal, altitudinal and habitat distributions. Each family and, often, genus is preceded by text that covers characteristics of distribution common to the group. A small black and white drawing of each species is included.

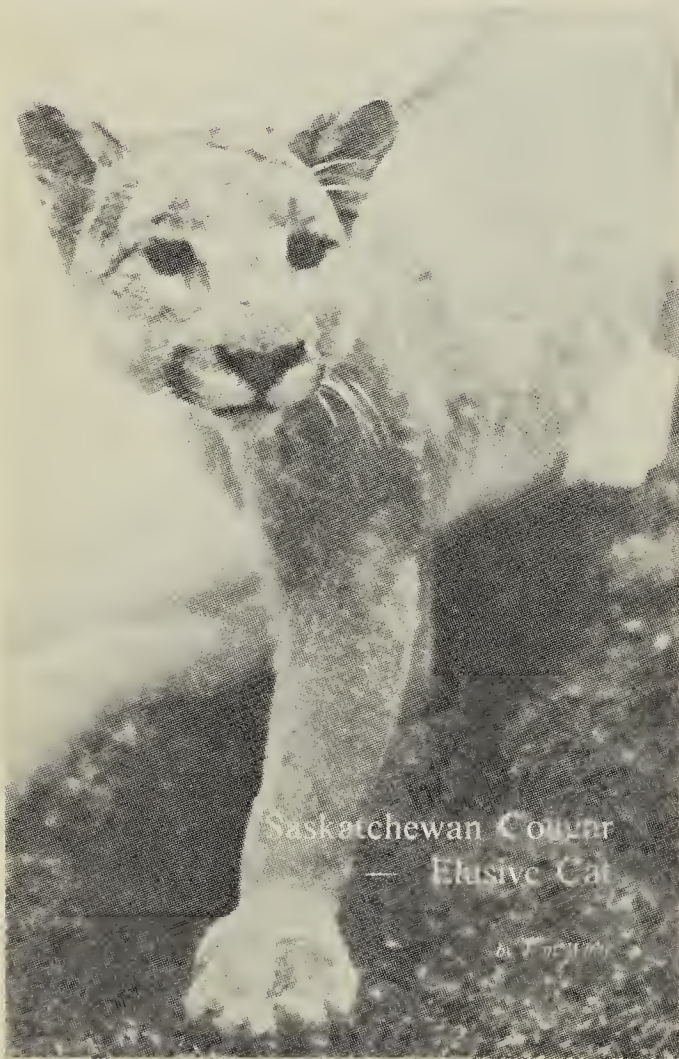
While it goes into more detail on distribution than the much less expensive field guides available for the area (as listed below), its main advantage appears to be that the boundaries of countries are given. This permits a tally to be made of the species likely to be seen in any area of interest.

BRUUN, BERTEL, and ARTHUR SINGER. 1970. Birds of Europe. McGraw-Hill Book Co., New York. 319 pp.

HEINZEL, HERMAN, R. S. R. FITTER and J. L. F. PARSLOW. 1974. The birds of Britain and Europe with North Africa and the Middle East. Collins, London. 332 pp.

PETERSON, R. T., GUY MOUNTFORT and P. A. D. HOLLOM. 1974. A field guide to the birds of Britain and Europe. Collins, London. 344 pp.

— Reviewed by *Bernard Gollop*, 115 Perimeter Rd., Saskatoon, Saskatchewan. S7N 0X4.



SASKATCHEWAN COUGAR — ELUSIVE CAT

by Tom White.

Saskatchewan Natural History Society
Special Publication No. 14.

Price \$5.00.

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